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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,358	03/09/2001	Robert A. Ach	10971722-2	7724

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AGILENT TECHNOLOGIES, INC.  
Legal Department, 51UPD  
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EXAMINER

CHAKRABARTI, ARUN K

ART UNIT PAPER NUMBER

1634

DATE MAILED: 08/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/905,129,302, 358

Applicant(s)

Ach, R.

Examiner

Arun Chakrabarti

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed Action*.

Art Unit: 1634

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-20 are rejected under 35 U.S.C. 103(a) over Martin et al. (RNA, (1998), Vol. 4, pages 226-230) in view of Cao et al. (Proceedings of the National Academy of Sciences, (USA), (1996), Vol. 93, pages 11580-11585) further in view of Stratagene Catalog (1988, page 39).

Martin et al teach the reagents and methods for end-labeling ribonucleic acids with non-radioactively labeled ribonucleotides comprising:

a non-radioactively labeled ribonucleotide; and

an eukaryotic poly(A) polymerase (Abstract and RESULTS and DISCUSSION Section, Labeling of RNA with nonradioactive nucleotides Subsection, and Figures 1-4).

Martin et al teach the reagents and methods, wherein the non-radioactively labeled ribonucleotide is a non-radioactively labeled ATP and UTP analog (Abstract).

Art Unit: 1634

Martin et al teach the reagents and methods, wherein the non-radioactively labeled ribonucleotide is fluorescently labeled (Abstract and RESULTS and DISCUSSION Section, Labeling of RNA with nonradioactive nucleotides Subsection).

Martin et al do not teach the reagents and methods, wherein the prokaryotic poly(A) polymerase is a bacterial polymerase.

Cao et al. teach the reagents and methods, wherein the prokaryotic poly(A) polymerase is a bacterial polymerase (Abstract and MATERIALS AND METHODS and Figures 1-5).

It would have been further *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to combine and substitute the reagents and methods, wherein the prokaryotic poly(A) polymerase is a bacterial polymerase of Cao et al. into the composition of Martin et al, since Cao et al. state, "The identification of the gene for the second E. Coli. poly(A) polymerase opens the way for the detailed investigation of the metabolic role of mRNA polyadenylation by studying the consequences of disruption of either or both of the poly(A) polymerase genes (Page 11585, Column 2, last sentence)". By employing scientific reasoning, an ordinary artisan would have combined and substituted a functional equivalent poly(A) polymerase of Cao et al. into the composition of Martin et al, in order to improve the detailed investigation of the metabolic role of mRNA polyadenylation. An ordinary practitioner would have been motivated to combine and substitute the reagents and methods, wherein the functional equivalent prokaryotic poly(A) polymerase is a bacterial polymerase of Cao et al. into the composition of Martin et al, in order to achieve the express advantages , as noted by Cao et al., of

Art Unit: 1634

an invention which provides the detailed investigation of the metabolic role of mRNA polyadenylation by studying the consequences of disruption of either or both of the poly(A) polymerase genes.

Martin et al. in view of Cao et al. do not teach the motivation to combine all the reagents for end-labeling a ribonucleotide in the form of a kit.

Stratagene catalog teaches a motivation to combine reagents into kit format (page 39).

It would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to combine a suitable container, non-radioactively labeled ribonucleotide and a prokaryotic poly(A) polymerase of Martin et al. in view of Cao et al. into a kit format as discussed by Stratagene catalog since the Stratagene catalog teaches a motivation for combining reagents of use in an assay into a kit, "Each kit provides two services: 1) a variety of different reagents have been assembled and pre-mixed specifically for a defined set of experiments. Thus one need not purchase gram quantities of 10 different reagents, each of which is needed in only microgram amounts, when beginning a series of experiments. When one considers all of the unused chemicals that typically accumulate in weighing rooms, desiccators, and freezers, one quickly realizes that it is actually far more expensive for a small number of users to prepare most buffer solutions from the basic reagents. Stratagene provides only the quantities you will actually need, premixed and tested. In actuality, the kit format saves money and resources for everyone by dramatically reducing waste. 2) The other service provided in a kit is quality control (page 39, column 1).

Art Unit: 1634

***Response to Arguments***

3. Applicant's arguments with respect to all pending claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant is also hereby notified in response to the arguments that the failure of Rosenmeyer et al. (U.S. Patent 5,573,913) (November 12, 1996) to end-label a ribonucleic acid with a non-radioactively labeled ribonucleic acid and a poly(A) polymerase is not persuasive. Martin et al (as cited above) clearly teach to successfully end-label a ribonucleic acid with a non-radioactively labeled ribonucleic acid and a poly(A) polymerase.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun Chakrabarti, Ph.D., whose telephone number is (703) 306-5818. The examiner can normally be reached on 7:00 AM-4:30 PM from Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on (703) 308-1152. The fax phone number for this Group is (703) 305-7401.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group analyst Chantae Dessau whose telephone number is (703) 605-1237.

Application/Control Number: 09/802,358

Page 6

Art Unit: 1634



JEFFREY FREDMAN  
PRIMARY EXAMINER

Arun Chakrabarti,

Patent Examiner,

August 5, 2002